

Blinn Variant Gravelly Silt Loam 82-1D-0565 (82ID-009-12)

Classification: loamy-skeletal, mixed, frigid Mollic Haploxeralfs.

General Site Characteristics

Location: Benewah County, Idaho; 400 yds. S up slope from road, 1.2 mi. up Moid Draw road from hwy; 2450 ft. S & 860 ft. E of NW corner of sec. 30, T. 46N., R. 1W.

Forest:

Area: St Joe SSA

Described By/Date: Soil Conservation Service personnel on October 14, 1982

Parent Rock/Material: loess over basalt

Habitat Type: grand fir/ninebark; Douglass fir, grand fir, mountain maple, service berry, snowberry, ocean spray, ninebark, pachystima, Oregon grape, strawberry, and pinegrass.

Topography: very steep

Landform: canyon slope

Weathering:

Formation Name:

Slope: 60 percent

Aspect: west

Elevation: 2760 feet

Soil Depth:

Eff. Rooting Depth:

Litter Type:

Surface Rock: 5-30 feet apart

Climate: frigid, xeric

Precipitation:

Erosion: slight

Infiltration:

Permeability: mod. slow

Storage:

Drainage: well drained

Air Temp:

Soil Temp at 20 inches:

Salt/Alkal:

Remarks: Moderate brush invasion in openings.

Pedon Description

Oi 2-4 cm. Needles, leaves, twigs, and moss.

Oe 1-8 cm. Partly decomposed organic matter (Mt. St. Helen's mixed in).

A 8-13 cm. Brown (7.5YR 5/2) gravelly silt loam, dark brown (7.5YR 3/2) moist; weak fine subangular blocky structure parting to moderate fine granular structure; slightly hard, friable, slightly sticky and slightly plastic; moderately acid pH 5.9; common very fine and fine, few medium roots; many very fine and fine tubular pores; 38 percent gravels by weight; clear wavy boundary.

Bt1 13-38 cm. Brown (7.5YR 5/4) gravelly silt loam, dark brown (7.5YR 3/4) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; moderately acid pH 5.9; common very fine, fine, medium and coarse roots; many very fine and fine tubular pores; 40 percent gravels by weight; common thin clay films lining ped faces and pores; abrupt wavy boundary.

Bt2 38-69 cm. Light brown (7.5YR 6/4) gravelly silt loam, dark brown to brown (7.5YR 4/4) moist; moderate fine and medium subangular blocky structure; hard, firm, sticky and slightly plastic; common very fine, fine, and medium, few coarse roots; many very fine and fine, few medium tubular pores; 42 percent gravels by weight; many moderately thick clay films lining ped faces and pores; gradual wavy boundary.

Bt3 69-97 cm. Light yellowish brown (10YR 6/4) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure; hard, firm, sticky and plastic; common very fine, fine, and medium, few coarse roots; many very fine, common fine, few medium tubular pores; 47 percent gravels by weight; many thin and common moderately thick clay films lining ped faces and pores; gradual wavy boundary.

Bt4 97-122 cm. Light yellowish brown (10YR 6/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; hard, firm, sticky and plastic; common very fine and fine, few medium roots; many very fine, common fine tubular pores; 57 percent gravels by weight; many thin, few moderately thick clay films lining ped faces and pores; strongly acid pH 5.4; abrupt wavy boundary.

R 122+ cm. Hard basalt bedrock.

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Date: June 1984

Sample No.	Horizon	Depth	pH paste	EC <sup>3</sup> <sub>10</sub>	% Water at Saturation	Available P	Sesquioxides				Spodic
							Di-Citrate Fe	Extract Al	Pyrophosphate Fe	Extract Al	
		cm		mmhos/cm		ppm					
	Oi	2- 1	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oe	1- 0	NS	NS	NS	NS	NS	NS	NS	NS	NS
1	A	0- 13	5.9	0.32	52	6.0	3.75	0.38	0.17	0.10	no
2	Bt1	13- 38	5.9	0.29	44	3.6	4.24	0.32	0.13	0.11	no
3	Bt2	38- 69	5.7	0.19	42	3.0	4.59	0.30	0.00	0.07	no
4	Bt3	69- 97	5.6	0.19	43	7.2	5.39	0.34	0.05	0.07	no
5	Bt4	97-122	5.4	0.19	44	1.2	5.35	0.34	0.04	0.07	no
	R	122+	NS	NS	NS	NS	NS	NS	NS	NS	NS

Sample No.	Exchangeable ions				Ext. Acidity	CEC	Base Saturation	OM	OC	N	C:N	Soil Fraction	Nat pH
	Ca	Mg	Na	K									
	meq/100 gms						%		%		ratio		
	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1	11.5	2.0	0.1	1.1	10.0	28.7	45	4.62	2.69	0.164	16	0.62	9.6
2	10.8	2.0	0.1	0.7	13.2	25.2	51	2.77	1.61	0.100	16	0.60	9.4
3	9.2	2.5	0.1	0.5	10.7	15.2	54	1.30	0.76	0.055	14	0.58	9.1
4	9.2	3.3	0.1	0.4	13.3	21.1	49	1.03	0.60	0.046	13	0.53	9.1
5	10.5	3.5	0.1	0.3	13.9	29.2	51	0.82	0.48	0.039	12	0.43	9.0
	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Remarks: CEC's were leached with 10% acidified NaCl.  
CEC's and nitrogens were run by steam distillation.  
Extractable cations were run on the Jarrell Ash atomic absorption.  
NS - no sample

Analysis by: Debbie Eisinger

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Date: May 1984

Particle Size Distribution (mm)								Gravel & Stone			
Depth	VCS	CS	MS	FS	VFS	TS	TSi	TC	>2 mm	Textural	
	2-1.0	1-0.5	0.5-0.25	0.25-0.1	0.1-0.05	2-0.05	0.05-0.002	<0.002	wt.	vol.	Classes
cm	%								%		
2- 1	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS
1- 0	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS
0- 13	5.41	4.89	3.23	5.30	6.16	24.99	55.08	19.93	38		Gravelly silt loam
13- 38	2.03	4.45	3.50	6.04	6.95	22.96	54.36	22.67	40		Gravelly silt loam
38- 69	2.80	4.24	2.99	5.89	6.97	22.88	51.37	25.75	42		Gravelly silt loam
69- 97	1.73	2.75	2.55	6.63	7.90	21.56	49.01	29.43	47		Gravelly clay loam
97-122	1.27	2.68	2.67	7.99	8.85	23.46	43.27	33.27	57		V. gravelly clay loam
122+	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS
Silt Size Distribution (mm)						Water Content		Liquid	Plastic	Plastic	
Depth	CoSi	Msi	Fsi	Bulk Density		1/3	15	Limit	Limit	Index	
	0.05-0.02	0.02-0.005	0.005-0.002	Clod	Core	Bar	Bar				
cm	%			g/cc		%		%			
2- 1						NS	NS				
1- 0						NS	NS				
0- 13						39.2	19.4				
13- 38						35.1	17.6				
38- 69						32.7	17.9				
69- 97						31.3	19.2				
97-122						32.7	21.7				
122+						NS	NS				

Remarks: Samples were run by the centrifuge method, 5% sodium hexametaphosphate added, sonified, and carbonates were not removed.  
NS - no sample

Analysis by: Anita L. Falen